



RESEARCH NOTE.....

Influence of FecB gene on greasy fleecy yield in Malpura, Garole and their crossbreeds

KAVITA PATIL, B.R. ULMEK AND S.D. MANDAKMALE

Author for Corresponding -

KAVITA PATIL

Krishi Vigyan Kendra (M.P.K.V.),
Selsura, WARDHA (M.S.) INDIA
Email: kavita_patil26@rediffmail.com

See end of the article for

Coopted authors'

ABSTRACT..... FecB gene played important role in GFY. However improvement in GM crosses with regards to growth traits was very slow as compared to the Malpura. Therefore back crossing of GM crosses with Malpura ram or ewe might be useful for improving production and reproduction traits.

KEY WORDS.....FecB, Garole, Malpura sheep, Wool yield

HOW TO CITE THIS ARTICLE - Patil, Kavita, Ulmek, B.R. and Mandakmale, S.D. (2016). Influence of FecB gene on greasy fleecy yield in Malpura, Garole and their crossbreeds. *Asian J. Animal Sci.*, 11(2): 171-172. DOI : 10.15740/HAS/TAJAS/11.2/171-172.

ARTICLE CHRONICLE - Received : 08.11.2016; Accepted : 30.11.2016

The present investigation was made to study the influence of FecB gene in greasy fleece yield of Malpura, Garole and their crossbreeds.

Greasy fleece yields records of Malpura, Garole and GM were obtained from mutton and carpet wool projects of Central Sheep and Wool Research Institute, Avikanagar. Flocks were kept under similar grazing, feeding and housing management. The washed sheep are shorn by hand shearing twice a year (at 6 months interval). The wool yield was recorded immediately after shearing.

Greasy fleece yield data for Malpura, Garole and GM was collected from carpet wool projects of Central Sheep and Wool Research Institute, Avikanagar.

The data were classified according to presence of FecB gene *i.e.*, Homozygous, Heterozygous and non-carriers and sex of animal male and female. The least-squares analysis procedures were adopted using LSMLMW programme (Harvey, 1990).

The results obtained from the present investigation as well as relevant discussion have been summarized under the following heads :

Malpura :

The overall least squares mean was 0.573 ± 0.056 kg for GFY1 means first season /year in Malpur (Table 1).

The results showed that the sex did not significantly affect on GFY1 in Malpura but type of birth significantly ($P < 0.01$) affected on GFY1 in Malpura.

The least squares means for GFY1 were 0.693 ± 0.017 and 0.453 ± 0.110 in single and multiple birth, in Malpura, respectively (Table 1). Sharma *et al.* (2003) reported similar findings in Malpura. Age at shearing showed significant ($P < 0.01$) effect on GFY1, it might be due to the fact, as age advances during growing stages the body surface area also increases resulting into higher GFY1.

Table 1 : Least squares means for GFY1 (kg) as affected by sex and type of birth in Malpura

	GFY
Overall mean	0.573±0.056 (55)
Sex	NS
Male	0.561±0.058 (40)
Female	0.586±0.059 (15)
Type of Birth	**
Single	0.693±0.017 (51) ^a
Multiple	0.453±0.110 (4) ^b
Age at shearing	**

Note : **indicates significance of value at P<0.01, NS=Non-significant
Figures in parentheses indicate number of animals

Garole :

The overall least squares means for GFY1 was 0.20±0.014 in Garole. The analysis of variance indicated with significant (P < 0.01) influence of FecB gene on GFY1 (Table 2).

Least square means for GFY1 were 0.15±0.02, 0.10±0.02 and 0.34±0.03 kg in homozygous, heterozygous and non-carrier, respectively in Garole. Age at shearing were significant (P<0.01) in Garole.

Table 2 : Least squares means for GFY1 (kg) as affected by FecB in Garole

	GFY 1
Overall mean	0.200±0.014 (31)
Fec B	**
Fec BB	0.153±0.021 (13) ^a
Fec B+	0.106±0.029 (15) ^a
Fec++	0.342±0.037 (3) ^b
Age at shearing	**

Note : **indicates significance of value at P<0.01, NS=Non-significant
Figures in parentheses indicate number of animals

Garole X Malpura :

Overall least squares means for GFY1 (Table 3) were 0.435±0.025 kg in GM crosses with non-significant influence of FecB. Result showed that least squares means for GFY1 of GM were higher as compared to Garole as 0.445 ± 0.061, 0.408 ± 0.027 and 0.452 ± 0.036 in homozygous, heterozygous and non-carrier condition, respectively. Literatures on this aspect were very scanty.

Table 3 : Least squares means for GFY1 (kg) as affected by FecB in GM

	GFY
Overall mean	0.435±0.025 (71)
Fec B	NS
Fec BB	0.445±0.061 (8)
Fec B+	0.408±0.027 (42)
Fec++	0.452±0.036 (21)
Age at shearing	NS

Note : NS=Non-significant

Figures in parentheses indicate number of animals

Acknowledgement :

We thank the Director, CSWRI, Avikanagar and Vice-chancellor, Mahatma Phule Krishi Vidhyapeeth, Rahuri (M.S.) for providing facilities, technical help rendered by AG and B Division is also acknowledged.

COOPTED AUTHORS' –

B.R. ULMEK, College of Agriculture, PUNE (M.S.) INDIA
Email-adacpune@gmail.com

S.D. MANDAKMALE, Animal Genetics and Breeding Division, Central Sheep and Wool Research Institute, AVIKANAGAR (RAJASTHAN) INDIA
Email-alarora_avk@yahoo.co.in

LITERATURE CITED.....

Harvey, W.R. (1990). User's Guide for LSMLMW MIXMDL PC-2 Version, Columbus, OH, USA.

Sharma, R.C., Arora, A.L., Mishra, A.K. and Kumar, Sushil (2003). Production performance of Malpura sheep in an organized farm in Rajasthan. *Indian J. Small. Rumi.*, **9** (2) : 119-121.

11th
Year
★★★★★ of Excellence ★★★★★